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09/687,492	10/13/2000	Raphael W. Smith	L7008-0001	9391

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EXAMINER

OJINI, EZIAMARA ANTHONY

ART UNIT

PAPER NUMBER

3723

DATE MAILED: 12/03/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/687,492

Applicant(s)

Raphael W. Smith

Examiner

Anthony Ojini

Art Unit

3723



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on Oct 13, 2000

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-17 is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-17 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on Oct 13, 2000 is/are objected to by the Examiner.

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) All b) Some* c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) Notice of References Cited (PTO-892)

18) Interview Summary (PTO-413) Paper No(s). _____

16) Notice of Draftsperson's Patent Drawing Review (PTO-948)

19) Notice of Informal Patent Application (PTO-152)

17) Information Disclosure Statement(s) (PTO-1449) Paper No(s). 2

20) Other: _____

Art Unit: 3723

DETAILED ACTION

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "82" has been used to designate both finger guide and carriage in figure 5. Correction is required.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the means for independently adjusting a position of the both the grinding wheels must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect can be deferred until the application is allowed by the examiner.

Claim Rejections - 35 USC § 112

Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 3723

In claims 1,14, lines 15 and 22 respectively, it has been held that the functional “whereby” statement does not define any structure and accordingly can not serve to distinguish.

In re Mason, 114 USPQ 127, 44 CCPA 937 (1957).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12 and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stanaback in view of Junker (DE 002629130 A1) and Kinner.

With respect to claims 1-10 and 14-17 Stanaback discloses an end mill grinder **10** and method for grinding an end mill, comprising a grinding wheel **(32)** for grinding the cutting surfaces of the end mill; means **(13)** adjusting a position of the grinding wheels and means **(30)** including a spindle for rotating the grinding wheel; an adjustable carriage **(24)** located adjacent the grinding wheel that allows the end mill to be positioned on the finger guide prior to contacting the grinding wheel (see col. 3, lines 5-13 & fig. 1); a finger guide **(60)** attached to the carriage; an end mill retainer **(28)** that allows a rotational and longitudinal movement and for holding the end mill.

Art Unit: 3723

Stanaback fails to disclose a second grinding wheel for grinding a secondary clearance of the mill and means for rotating the secondary grinding wheel and means for independently adjusting a position of the grinding wheel, wherein both the grinding wheels simultaneously grind the cutting surfaces of the end mill; motors and belts assembly attached to the motor for rotationally driving both the grinding wheels.

Junker (DE 002629130 A1) a pair of grinding wheels 1,2 that simultaneously grind the cutting surfaces flutes 3 of an end mill 4; and Kinner discloses a pair of grinding wheels (22,24) for grinding a workpiece and means (22m, 24m) for rotating both the grinding wheels.

It would have been obvious to one ordinary skill in the art at the time the invention was made to provide the apparatus of Stanaback with a pair of grinding wheels and means for rotating both the grinding wheels in view of Junker (DE 002629130 A1) and Kinner so as to simultaneously grind the cutting surfaces flutes of an end mill.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the apparatus of Stanaback with motors and belts assembly attached to the motor for rotationally driving both the grinding wheels, since it has been held that omission of an element and its function in a combination where the remaining elements perform the same functions as before involves only routine skill in the art. *In re Karlson*, 136 USPQ 184.

With respect to claims 11 and 12, Stanaback fails to disclose a grinding wheels that are constructed of diamond and borazon.

Art Unit: 3723

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the apparatus of Stanaback with a grinding wheels that are constructed of diamond and borazon, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. See also *Ballas Liquidating Co. v. Allied industries of Kansas, Inc.* (DC Kans) 205 USPQ 331.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stanaback in view of Junker (DE 002629130 A1) and Kinner as applied to claim 1 above, and further in view of Schultz.

Stanaback fails to disclose a pair of grinding wheels that rotates in an opposite direction. Schultz discloses a pair of grinding wheels (**19,29**) that rotates in an opposite direction (see column 1, lines 8-10 & fig. 3).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the apparatus of Stanaback with a pair of grinding wheels that rotates in an opposite direction in view of Schultz so as to prevent binding of the workpiece being sharpened.

Art Unit: 3723

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Heim, Hollengreen et al., Rochet, Kotthaus, Helle, Kuo disclose a grinding apparatus respectively.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Ojini whose telephone number is (703) 305 3768.



Joseph J. Hail, III
Supervisory Patent Examiner
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November 13, 2001